

**Health and Rehabilitation Sciences**  
<http://shrs.iupui.edu/>

Teaching and Learning

- Eighty (80) students participated in our commencement ceremony in May 2012. This number includes our school's first recipients of the Ph.D degree and Bachelor of Science in Health Sciences degree.
- Faculty published 30 articles in peer-reviewed journals, and gave 21 peer-reviewed presentations at conferences.
- Fourteen (14) students received named fellowship and scholarship awards.
- The PhD in Health and Rehabilitation Sciences degree program admitted four new students in spring and two in fall, 2011, bringing the total number of students enrolled to 21.
- Physical Therapy faculty Valerie Strunk successfully launched the first course in a new three course sequence titled Integrated Clinical Education I, II, and III with the first year DPT students in fall, 2011.
- Under the supervision of Peter Altenburger, PhD, PT, physical therapy students enrolled in P645 Evidence Based Critical Inquiry course summarized and presented evidence based reports on topics selected by therapists at Rehab Hospital of Indiana (RHI).
- Thirty six (36) first year occupational therapy students began the entry level master's program in June, 2012. The class profile includes 32 women and 4 men ranging in age from 21 to 51. Students came from 13 different undergraduate institutions representing 4 states. The mean undergraduate cumulative GPA for the class is 3.83 and prerequisite GPA is 3.95.
- Thirty eight (38) first year physical therapy students began the entry level doctorate program in August, 2011. The class profile includes 30 women and 8 men ranging in age from 22 to 38. Students came from 16 different undergraduate institutions representing 2 states and 3 countries. The average undergraduate cumulative GPA for the class is 3.73 and math/science GPA is 3.71.
- At the request of the Board of Directors of the American Hand Therapy Foundation (AHTF), Elaine Fess, MS, OTR, FAOTA, CHT, conducted a session on "The Differences Between 501c3 Foundations and Dues/Membership Organizations" at the AHFT annual meeting in Nashville, TN.
- Faculty and students attended the IU School of Health and Rehabilitation Sciences' first Interdisciplinary Research Conference on November 12, 2011, sponsored by the IU SHRS Alumni Board.
- Amy Bayliss, PT, DPT, Robyn Fuchs, PhD, and DPT students (Lisa Daily, Megan Koerner and Luke Rinehart), conducted a workshop on evidence-based guide to treating patients with osteoporosis during the Central Indiana Chapter Meeting of the American Physical Therapy Association on January 17, 2012.
- Valerie Strunk, MS, PT, Peter Altenburger, PhD, PT, Amy Bayliss, PT, DPT, and Terry Loghmani, PhD, PT, MTC, CMT conducted an educational session at the American Physical Therapy Association's Combined Section Meeting in Chicago, IL on February 9, 2012. Their 2-hour educational session titled: *"It's All in the*

*Family: Making the Case for Instructional Collaboration Using the Integrated Longitudinal Case-Based Learning Mode”* was presented to a national audience.

- Two (2) DPT students, (Rebecca Holtz and Marie Berghoff), received IUPUI Graduate Office Travel Fellowship awards for travel to the Combined Sections Meeting of the American Physical Therapy Association.
- Chuing-Ju Liu, PhD, OTR, and Arlene Schmid, PhD, OTR presented “Systematic Review and Meta-Analysis of Progressive Resistance Strength Training for Older Adults” and “Yoga After Stroke”, respectively at the first annual Occupational Science Summit in St. Louis, MO in March 2012.

## Research, Scholarship, and Creative Activity

### Grants

- Augustine Agho, Ph.D., received \$150,600 from St. Vincent Hospitals for the Health Careers Opportunity Program.
- Peter Altenburger, Ph.D., PT, received funding from IU School of Health and Rehabilitation Science’s (SHRS) Promoting External Applications for Research (PEAR) program to purchase accelerometers to measure activity level and energy expenditure in children with cerebral palsy.
- Mary Beth Brown, PhD, PT, ATC, received \$7,000 from IUPUI for “Research Use of Core Facilities”.
- Judith Ernst, D.M.Sc., RD, received \$322,522 from the National Institute of Health (NIH) for the study of Increasing Animal Foods in Diets of HIV-Infected Kenyan Women and Their Children.
- Tracy Dierks, Ph.D., received \$23,662 from Riley Children’s Foundation for th study of The Effects of Robot Assisted Locomotor Therapy on Lower Extremity Function and motor Performance in Children with Cerebral Palsy.
- Robyn Fuchs, Ph.D., received \$123,040 from NIH for the study of The Role of Periostin in Bone Formation.
- Michael Justiss, Ph.D., OTR, received \$44,965 from Createability Concept for the study of Variable Prompting Technology for Improving the ADL Tasks Performance of Older Adults with Dementia.
- Terry Loghmani, PhD, PT, MTC, CMT, Peter Altenburger, PhD, PT, and Valerie Strunk, MS, PT, received \$2500 from IUPUI Program Review and Assessment to conduct a study entitled: Assessment of an Integrative Longitudinal Case-based Learning Model as a Curriculum Strategy to Enhance Teaching and Learning- Phase 2.
- Terry Loghmani, PhD, PT, MTC, CMT, received \$896.00 from the IU School of Health and Rehabilitation Science’s (SHRS) Promoting External Applications for Research (PEAR) program to attend the Ida P. Rolf Research Foundation Research Training and Project Funding Symposium at the Third International Fascia Research Congress.

- Christina Mushi-Brunt, Ph.D., MPH, received \$65,304 from the Indiana University Collaborative Research Grants fund (IUCRG) to support the grant proposal “Integrating Clinical Data Systems with Social Context to Map Neighborhood Health”.
- Christina Mushi-Brunt, PhD, MPH, received \$11, 940 from IUPUI Research Support Funds to study the existing and potential urban produce gardens in a large metropolitan area and develop a comprehensive report and action recommendations for local and state leaders and residents.
- Christina Mushi-Brunt, PhD, MPH, received \$12, 280 from IUPUI Developing Diverse research with InVestigative Expertise (DRIVE) to test the feasibility of establishing community produce gardens in a low-income neighborhood using a community-academic partnership model.
- Christina Mushi-Brunt, PhD, MPH, received a two year appointment as an Investigator in the recently established IUPUI Center for Urban Health (CUH). The CUH is funded through the IUPUI Signature Center Initiative with the central theme of exploring linkages among environment, community and health.
- Christina Mushi-Brunt, PhD, received funding to serve as evaluation consultant for St Vincent Health-Metropolitan Indianapolis Central Indiana Area Health Education Center’s (MICI-AHEC) grant titled Health Careers Opportunity Program-Increasing Needed Diversity (HCOP-INDY) Project funded by the US Department of Health and Human Services’ Health Services and Resources Administration.
- Karyl Rickard, PhD, RD, received \$188,090 from the U.S. Department of Health and Human Services (HRSA) for a Leadership Education Excellence in Pediatric Nutrition grant. This is the 24<sup>th</sup> consecutive renewal for this grant.
- Neumann, Wang, McDonald, and Arlene Schmid, PhD, OTR, received \$33,000 from IU CBRAIN to conduct a study entitled: Stroke Self-Management: Effect on Function and Stroke Specific Quality of Life, February 2012.
- Wang, Neumann, McDonald, and Arlene Schmid, PhD, OTR, received \$57,283 from IU CRG to conduct a study entitled: Neurological Mechanisms Underlying Affect Recognition Deficits after Brain Injury, Feb 2012.
- Stuart Warden, PhD, PT, FACSM, received \$266,112 from NIH for the study of Sustainability of Exercise-Induced Gains in Bone Structure and Estimated Strength.
- Stuart Warden, PhD, PT, FACSM, received \$20,000 from the Indiana CTSI for his project: “Refinement and accuracy of a device to quantify the number and hardness of baseball throws”.

### Research

- Christina Mushi-Brunt, PhD, MPH, received a two year appointment as an Investigator in the recently established IUPUI Center for Urban Health (CUH). The CUH is funded through the IUPUI Signature Center Initiative with the central theme of exploring linkages among environment, community and health.
- Christina Mushi-Brunt, Virgil, K, Agbonhese, J. presented a poster on the availability, price and quality of food items in diverse food retail outlets at the 2011 IUPUI Research Day, IUPUI, Indianapolis, IN.

## Creative Activity

- Ryan Cardinal, a PhD student, was featured in the *Indianapolis Star* as a *Rising Star* for healthcare in Indianapolis, July 9, 2011. He was also featured along with the IU Health Robotics Center in the *Lafayette Courier and Journal*. The title of the article was, "Robots aid kids' physical therapy: Mechanical apparatus in Riley program helps train brain to do everyday motions." July 17, 2011.  
<http://www.indystar.com/article/201107110245/BUSINESS/307/100003>

## Civic Engagement

- Deborah Abel, MS., Visiting Lecturer spoke on "My Food Plate and Normal Pediatric Nutrition" at the School Nurse Symposium held at Riley Hospital for Children, July 29, 2011.
- Gaylen Kelton, MD, provided faculty oversight to the IU Student Outreach Clinic in the months of July and September, 2011.
- In September, DPT students from the class of 2013 collaborated with IU Health Clinicians on researching evidence based therapy questions. The student-therapist teams discussed their findings at a full staff presentation in December 2011.
- The MS Swim program and Senior Center exercise classes were offered in September 2011. DPT students organize and lead each of these weekly community based activities.
- Patricia Scott, PhD, MPH, OT, FAOTA, was interviewed on Web MD about her research on Recovery following transplantation.
- Amy Bayliss, PT, DPT, was interviewed by "Bottom Line Health" (Sept. 2011) on the use of foam rollers to support musculoskeletal health.
- Faculty and Students participated in PT Month activities (Oct. 2011), including the walk/run, food drive and health fair.
- Student Occupational Therapy Association (SOTA) students and faculty participated in the 2011 Alzheimer's Memory Walk. SOTA raised \$1015.60 for Alzheimer's Association.
- IU Occupational Therapy students held a canned food drive for Gleaner's Food Bank just before Thanksgiving. They collected a total of 806 items.
- The Student Occupational Therapy Association (SOTA) performed the following community outreach efforts:
  - Several members traveled to Osgood, IN to assist with Tornado Relief efforts twice in March, 2012.
  - Volunteered with Wheeler Mission to serve lunch in March 2012.
- Arlene Schmid, PhD, OTR, with the help of members of Pi Theta Epsilon, collected toiletries for homeless veterans in Indianapolis.

## Diversity

- Minority students enrolled in SHRS increased from 6.5% in fall 2010 to 12.5% in fall 2011 due to the implementation of the Bachelor of Science in Health Sciences degree program.
- The results of a climate survey conducted by the SHRS Diversity Committee indicated that 90% of SHRS students believe that faculty and staff are committed to promoting an environment that respects and celebrates diversity; 68% felt that they are well prepared to live and work in a diverse society.
- SHRS faculty are expected to include a statement that “students will be able to apply content in a manner that recognizes and respects individual differences among the dimensions of race, ethnicity, gender, sexual orientation, socioeconomic status, age, physical/cognitive/psychosocial abilities and religious beliefs” upon completing of their course. This statement is reflected in 83% of the courses offered by SHRS faculty.

## Best Practices

- The first time pass rate for the Department of Nutrition and Dietetics class of 2011 was 93%.
- The first time pass rate for the Occupational Therapy class of 2011 was 94% compared to the national average of 84%.
- The first-time pass rate for the Physical Therapy class of 2011 was 100% compared to the national average of 88%.
- Patricia Scott, PhD, MPH, OT, FAOTA, teamed with OT students (James Faul, Kristi Kramer, Megan Fernung, and Liz Stollemyer) to work with occupational therapists at Wishard hospital (Oct.-Nov. 2011) to establish the use of outcome data to inform practice.
- On Dec. 12, 2011, the Physical Therapy students presented evidence based critical reviews for clinical questions posed by Indiana University Health Outpatient Physical Therapists. Approximately 30 clinicians attended the student platform presentations.
- The Occupational Therapy program was ranked 21<sup>st</sup> out of 156 OT programs in the country according to the U.S. News & World Report’s Best Graduate Schools ranking released on March 13, 2012.  
<http://grad-schools.usnews.rankingsandreviews.com>

## External Awards and Appointments

- Deborah Abel, Visiting Lecturer of Nutrition & Dietetics; Coordinator, Leadership Education in MCH Nutrition (Pediatric Focus); and PhD candidate in the School of Health and Rehabilitation Sciences (SHRS) received a patent for her systematic approach to recording, calculating and presenting nutritional data specifically related to the feeding and resulting growth outcomes of very low birth weight (VLBW) infants.  
<http://www.shrs.iupui.edu/news/5173/Patent-issued-for-work-on-nutrition-of-very-low-birth-weight-infants>
- Amy Bayliss, PT, DPT, received an Outstanding Service Award from the Federation of State Boards of Physical Therapy, in Oct. 2010.

- Amy Bayliss, PT, DPT served as a reviewer for the Journal of Physical Therapy Education.
- Mary Beth Brown, PhD, PT, ATC, won the award for “Best Research Presentation” for her presentation *Bridges to Baccalaureate student (Tsongai Chingombe) from Zimbabwe* at the regional ACSM conference on Oct. 28, 2011.
- Tracy Dierks, PhD, Peter Altenburger, PhD, PT, Ryan Cardinal, DPT, along with Deborah Hamby, MD, and Pauline Flesch received the Anita Slominski Caring Award from the United Cerebral Palsy Association of Greater Indiana in March, 2011.
- Brian Duff, Occupational Therapy student, won the Carol D. Nathan Leadership Award.
- Robyn Fuchs, PhD, became a member of the Editorial board for the *Journal of Osteoporosis*.
- Fengyi Kuo, DHS, OTR, CPRP, was an elected delegate of 2010-2011 to represent the Pan-Pacific & South-East Asia Women’s Association (PPSEAWA) of Taiwan, ROC for its participation at the United Nations’ 55<sup>th</sup> session of Commission on the Status of Women in 2011. The conference took place at the United Nations’ Headquarters in NYC.
- Fengyi Kuo, DHS, OTR, CPRP, served as faculty facilitator for the Sino-NMA (Norwegian Mission Alliance) curriculum development project for OT Educators in China. This is a joint project between NMA and Chinese Association of Rehabilitation Medicine (CARM) with support from the World Federation of Occupational Therapists (WFOT).
- Loghmani MT, Bayliss A, Strunk V, Altenburger P. received the Feitelberg Journal Founders' Award for the paper “*Curriculum Strategy to Enhance Teaching and Learning*” published in the Journal of Physical Therapy Education in 2011.
- Joyce Mac Kinnon, EdD, PT, is continuing her appointment as visiting professor, Central University of Technology (CUT), Bloemfontein, South Africa.
- Arlene Schmid, PhD, OTR, (first author), Tracy Dierks, PhD, and Peter Altenburger, PhD, PT, received the Best Poster award at the American Congress of Rehabilitation Medicine conference. The abstract is published in the Archives of Physical Medicine and Rehabilitation, 2011;92(10):1713.
- Kisha Virgil, a student in the PhD program, participated as a conference intern for the 21<sup>st</sup> Annual Art and Science of Health Promotion Conference in Colorado Springs, CO.
- Stuart Warden, PhD, PT, FACSM, received Top Review 2009-2010 for *Bone*, Elsevier Inc.
- Stuart Warden, PhD, PT, FACSM, was appointed as an Associate Editor of the *Journal of Musculoskeletal and Neuronal Interactions* and Editorial Board Member of the journal *Bone*.
- Stuart Warden, PhD, PT, FACSM, received funding from the IUPUI Office of the Vice Chancellor for Research Signature Center Initiative to establish the IU Center for Translational Musculoskeletal Research.